

# Exhibit 4

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## SPACE

# NASA gave Artemis contractors bonuses despite delays and cost overruns, GAO says



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Florida Today

Published 4:51 p.m. ET June 21, 2019 | Updated 4:59 p.m. ET June 21, 2019

NASA's targeting of 2020 for the premiere of its Space Launch System rocket, part of the Artemis program to take humans back to the moon, is "misleading" and likely to slip into the following year, the agency charged with acting as a watchdog over Congress and taxpayer spending said this week.

The U.S. Government Accountability Office also took NASA to task over the hundreds of millions of dollars in bonuses doled out to contractors Boeing and Lockheed Martin, which are responsible for SLS and its companion Orion spacecraft, respectively.

In its analysis, the GAO said June 2021 was a more likely timeline for the rocket's first mission, which will test an uncrewed Orion spacecraft's ability to orbit the moon and return to Earth. That flight is known as Artemis-1 and designed to pave the way toward NASA's ultimate goal of putting humans back on the lunar surface by 2024.

"Any issues uncovered during planned integration and testing may push the launch date as late as June 2021," the report reads. "It would be misleading for us to continue to report the June 2020 launch date when we were told there was substantive risk to that date."

Boeing is the prime contractor for SLS, while Lockheed Martin was chosen for Orion spacecraft development.

## Artemis program costs

SLS and Orion, announced in 2011, will likely continue to see cost overruns too, the agency said.

"While NASA acknowledges about \$1 billion in cost growth for the SLS program, it is understated," the GAO said. "This is because NASA shifted some planned SLS scope to future missions but did not reduce the program's cost baseline accordingly."

When the GAO reduced the baseline and accounted for the reduction in scope, it found the figure nearly doubled to \$1.8 billion. While it did not yet have an exact number for cost increases in the Orion program due to schedules, the agency did say costs have increased some 5.6 percent.

Overall costs for the program – SLS, Orion, and required ground systems – were calculated in the report at around \$16.2 billion.

In a statement to FLORIDA TODAY, Boeing said it has a critical task in building NASA's first new human-rated rocket since the 1980s.

"The Space Launch System is critical to the nation and to the future of human space flight, and we are committed to its continued success," the company said. "We're rebuilding that national capability and injecting new manufacturing and technology capabilities along the way. No one is building a rocket like this."

The report indicated that while many components of SLS are on schedule, much of delay is being driven by the massive core stage.

In total, NASA expects the Artemis program to cost between \$20 and \$30 billion through 2024, or \$4 to \$6 billion a year on top of the \$20 billion the agency gets annually.

## **Awarding bonuses for Artemis**

The GAO also said it found that despite schedule slips and cost overruns, NASA awarded the primary contractors significant "incentive fees," or bonuses, along the way.

Since 2014, NASA has paid \$271 million to Boeing for SLS development and \$294 million to Lockheed Martin for Orion. That represents a majority of the total amount set aside for bonuses – 81% and 93%, respectively.

The programs "continue to fall behind schedule and overrun costs," the GAO said, but contract renegotiations could give NASA the ability to alter its strategy of offering bonuses for performance and meeting deadlines.

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*SLS WOES —*

# New report finds NASA awarded Boeing large fees despite SLS launch slips

"It would be misleading for us to continue to report the June 2020 launch date."

**ERIC BERGER** - 6/19/2019, 9:06 AM



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As NASA talks up its [Artemis Program](#) to return humans to the Moon by the year 2024, a [new report](#) from the US Government Accountability Office raises questions about the space agency's ability to build the spacecraft and rockets intended to carry out that mission.

Instead of launching in 2020, the Artemis-1 mission that will see a Space Launch System rocket boost an uncrewed Orion spacecraft around the Moon will instead launch as late as June 2021, the GAO

report finds. NASA also appears to have been obscuring the true cost of its development programs, particularly with the large SLS rocket, which has Boeing as its prime contractor.



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"While NASA acknowledges about \$1 billion in cost growth for the SLS program, it is understated," the report found. "This is because NASA shifted some planned SLS scope to future missions but did not reduce the program's cost baseline accordingly. When GAO reduced the baseline to account for the reduced scope, the cost growth is about \$1.8 billion."

NASA now estimates that it will spend about \$10 billion to develop the rocket and associated ground systems at Kennedy Space Center, where the vehicle will launch from. This figure assumes the vehicle does not encounter additional technical problems during the test and qualification phase of the hardware—which is where such problems typically arise.

NASA originally had planned to launch the SLS rocket in 2017 but has since pushed that date back multiple times. The agency's current administrator, Jim Bridenstine, has said NASA is looking at all options to keep the rocket's [inaugural launch](#) within calendar year 2020.

## Award fees

Despite these delays, however, the report found that NASA has continued to pay Boeing substantial award fees. From July 2014 through September 2018, the GAO found that NASA assessed Boeing's performance on development of the SLS rocket's core stage as "good," "very good," and "excellent" at various times. The agency gave Boeing \$271 million in award fees during this period, even after the rocket's scheduled launch continued to slip.

The report found several areas in which Boeing could have done more to keep the rocket on schedule. Perhaps most damning, the report states that, "As core stage production began, Boeing was focused on minimizing the number of technicians, in part to keep costs low, and hired about 100



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